OXIDANTS AND ANTIOXIDANTS IN MEDICAL SCIENCE 2021
VOL 10, NO. 7, PAGE 03

COMMENTARY

Open Access

An Overview: Green Tea as Antioxidants

Langi Liou*
Department of Life Sciences, Peking University, Beijing, China

ARTICLE HISTORY
Received July 23, 2s021
Accepted August 06, 2021
Published August 11, 2021

Importance and Limitations of Green Tea

Green tea is one of the types of tea which is produced from Camellia Sinensis (family Theaceae) leaves and buds which have not undergone the same withering and oxidation process that is used to make oolong teas and black teas. In this world Green tea is consumed by thousands of people in their daily life, which has more antioxidant properties in it. This beverage can either be served hot or cold.

Green tea is firstly originated from china, and then it gradually expanded to India, Sri Lanka and with adequate rainfall, good drainage and slightly acidic soil the tea crop grows best in tropical and sub-tropical countries. Green tea is considered widely as a health promoting beverage and it contains more catechins were *in vitro* and *in vivo* it has strong antioxidants than black tea or long tea.

Green tea is mostly consumed by people to reduce their weight naturally as it packed full of healthy bioactive compounds. As it contains of catechins it helps to flush out unwanted toxins from the body thus it improves metabolism and it also helps in slow down the aging process.

The green tea has many health benefits, were it helps to prevent cancer, cardiovascular diseases, hyperlipidemia, inflammation, reducing weight etc. The side effects of green tea include Headaches, Sleep Disorder, Iron Deficiency and Anaemia, Vomiting, Dizziness and Bleeding Disorders.

Polyphenols as Antioxidants

Antioxidants Green tea is rich in polyphenol, where it can reduce the formation of free radicals in the body and these free radicals play a major role in aging and many types of diseases. It is believed that EGCG provide most of the health benefits linked to green tea. It is characterized that the production of the tea by initial heating process it inhibits the polyphenol oxidase enzyme, responsible for the conversion of flavonoid into dark polyphenolic compounds. By generating hydrogen peroxide the polyphenols in green tea can act as pro-oxidants. Polyphenols, the antioxidant effects appear to be greater than those of Vitamin C.

It is stated that the polyphenols have inhibitory effect on the Reactive Oxygen Species (ROS) generation and also on the release of lysosomal enzymes. This tea also contains alkaloids including theobromine, theophylline and caffeine. The green tea stimulant effects were provided by these alkaloids. It also contains some of the phytochemical compounds. Green tea polyphenols has also been shown to act as antioxidants in in vitro models of cancer. These also inhibited markers of oxidative stress those are secondary to an inflammatory response. Green tea on an average cup it contains about 50 mg and 150 mg polyphenols.

Conclusion

Green tea is consumed throughout the world. Since the years of safe consumption of this tea, it is supported by number of studies showing health benefits and recommended to consume it regularly. Green tea possess of antioxidant, anti inflammatory, antiviral and antibacterial and related properties. It also acts positively on neurodegenerative diseases and also helps to prevent many chronic diseases.

Contact Langi Liou liulang56@xust.edu.cn Department of Life Sciences, Peking University, Beijing, China